

# Anlun Xu

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## EDUCATION

### CARNEGIE MELLON UNIVERSITY

#### BS IN COMPUTER SCIENCE

Graduating May 2020

Dean's List:

Fall 2016

Spring 2017

Spring 2018

Cum. GPA: 3.85 / 4.0

## LINKS

Github:// [anlunx](#)

LinkedIn:// [Allen-Xu](#)

## SKILLS

### LANGUAGES:

Proficient with

Java • Kotlin • C++

OCaml • Haskell

Familiar with

C • Python • LLVM

Lisp • x86 Assembly

JavaScript • TypeScript • IOS

### OTHER:

Git • Linux • Flask

TensorFlow • Unity3D

## COURSEWORK

### GRADUATE

Machine Learning

### UNDERGRADUATE

Compiler Design

Programming Languages

Algorithms Design & Analysis

Computer Graphics

Parallel Algorithms & Data Structures

Computer Systems

Theoretical Computer Science

## OBJECTIVE

To obtain a software engineering internship opportunity, where I can utilize my current skills and research experiences in software engineering and further develop my ability in the field of computer science

## EXPERIENCE

### SINGSOUND TECHNOLOGY | SOFTWARE ENGINEERING INTERN

June 2018 - August 2018 Beijing, China

- Developed a software that uses NLP to classify English texts
- Used statistical language models to analyze the complexity of English texts

### PROGRAM SYNTHESIS FOR JAVA APIS | INDEPENDENT RESEARCHER

January 2018 - June 2018 Carnegie Mellon University

- Developed SyMonster, a program synthesis tool that automatically generates Java programs
- Designed a type-directed algorithm that improved the performance of the program synthesis tool

### AUTOMATED RESOURCE ANALYSIS | RESEARCH ASSISTANT

May 2018 - Present Carnegie Mellon University

- Improved Absynth, a resource analysis tool, by implementing a neededness analysis algorithm
- Reduced the time needed to compute the resource bound of a program

## PROJECTS

### SCOTTY 3D | LEAD C++ DEVELOPER

January 2018 - May 2018 Carnegie Mellon University

- Developed a 3D graphics software that supports interactive mesh editing, realistic path tracing, and dynamic animation
- Improved the performance of path tracing renderer by implementing BVH algorithm

### KALEIDOSCOPE LANGUAGE | OCAML DEVELOPER

October 2017 - December 2017

- Implemented a compiler that generates LLVM IR for a C-like programming language
- Optimized the generated program by utilizing the LLVM Pass Framework

### LAZY SCHEME INTERPRETER | HASKELL DEVELOPER

July 2018 - Present

- Designed and developed an interpreter for a Scheme dialect that supports lazy evaluation
- Built an online REPL for this dialect in a web app powered by Flask

### AR MOBILE APP | LEAD ANDROID/KOTLIN DEVELOPER

November 2017 Princeton University

- Led a team of 4 people to create an augmented reality mobile app that stylizes the surrounding environment of the user